www.wunder.it

PROFESSIONAL ELETTRONIC MDD CHAIR SCALE
MOD. DE5

USER MANUAL

Read this manual carefully before using the instrument

INDEX

2.	GENERAL RULES	PAGE 2
3.	SAFETY	PAGE 3
4.	TECHNICAL SPECIFICATION	PAGE 3
5.	INDICATOR	PAGE 4
6.	INSTALLATION	PAGE 5
7.	INSTRUCTION FOR USE	PAGE 6
8.	PRINTER FUNCTIONS	PAGE 8
9.	SETTING SETUP	PAGE 9
10.	ERROR MESSAGE	PAGE 10
11.	MAINTENANCE AND ASSISTANCE	PAGE 10
12.	CONFORMITY	PAGE 11
13.	IDENTIFICATION LABELS	PAGE 11
14.	SCRAPPING AND WASTE DISPOSAL	PAGE 11
15.	WARRANTY	PAGE 12

By choosing the WUNDER mod.DE5 professional electronic chair scale, you have purchased a high precision instrument.

Since over 40 years Wunder has placed its experience at the service of health. This instrument is compliant with national standards in hospitals and clinics with medical class I with measurement function and is calibrated in conformity with accuracy class III.

The instrument is characterised by the possibility of fixing the electronic terminal to the weighing platform by means of a column or else installing the terminal autonomously.

The instrument is equipped with a dual LCD electronic terminal with triple reading to simultaneously view Weight, Height. and BMI

2. GENERAL RULES

Carefully read this manual before using the instrument as it supplies important indications concerning OPERATING SAFETY AND MAINTENANCE.

The descriptions and illustrations supplied in this manual are not binding.

WUNDER reserves the right to modify its products as deemed convenient in order to approve them without being committed to update this publication.

Conventions:

The following symbols have been used in this manual:

0470 MEDICAL CERTIFICATION

METROLOGICAL CERTIFICATION AND APPROVAL FOR MEDICAL USE

ACCURACY CLASS

ASSISTANCE WARRANTY CERTIFICATE

ATTENTION!

PLACED BEFORE DETERMINING PROCEDURES. COMPLIANCE FAILURE CAN DAMAGE THE PRODUCT

WARNING!

PLACED BEFORE DETERMINING PROCEDURES. COMPLIANCE FAILURE CAN HARM THE OPERATOR OR PATIENT OR DAMAGE THE PRODUCT

WASTE DISPOSAL

TYPE B PARTS SUPPLIED

BATTERY POWER

INDICATION OF WEIGHT FUNCTIONALITY

INDICATION OF STABLE WEIGHT

INTERFERENCE COULD OCCUR NEAR THE APPLIANCES

DUAL INSULATION

3. SAFETY

WARNINGS!

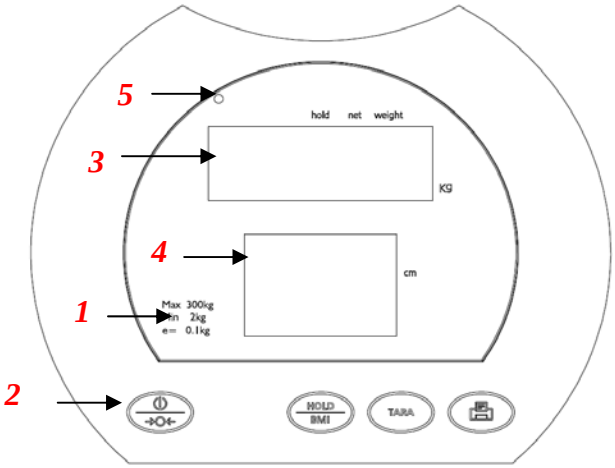
Operators must read this manual carefully, comply with the instructions it contains and become familiar with the correct use and maintenance procedures of the instrument.

- Retain this manual for consultation and as a help in staff training
- Do not overload the instrument beyond its maximum capacity
- Do not apply loads abruptly.
- Do not press the keys with sharp or pointed objects
- Do not try to open the instrument.
- Do not remove seals from the instrument.
- Do not short-circuit the battery terminals
- Use only the power supply provided by Wunder. Before using it, make sure that the local mains voltage is compatible with the voltage of the adapter shown on the identification plate
- Regularly check the integrity of the instrument's power cord and make sure it does not come in contact with hot appliances
- Make sure that the power cord does not create obstruction hazards
- Unplug the instrument before cleaning it
- Do not place the instrument in water or other liquids
- Perform maintenance and subsequent metric verifications regularly

4. THECHNICAL SPECIFICATION

Model	DE5
Capacità	300 kg
Divisione	100 g
MDD OIML	Classe III
Unit weight	kg
Display	LCD 1" con 5 digits
Function Key	ON / ZERO / OFF, HOLD / BMI, TARA, PRINT
Power	Extrenal adapter input 220V 12 V - 2 A - Batteries rechargeable use only stabilized adapter Wunder
Temperature operation	da +10°C a 40°C
Temperature storage	da 0°C a 60°C

5. INDICATOR



1.Weighing capacity and division

2.Key function

3.Main LCD: Weight

4.Second LCD automatically calculates BMI

5.Power display

Key functions

Key	Description
	Key ON. To reset the display (OFF) continuos press 3 seconds. Zero the scale (±2% of full capacity)
	To hold weighing result on the display/ determine stable weighing value. Function BMI
	Tare un-wanted weight
	Print uot data.

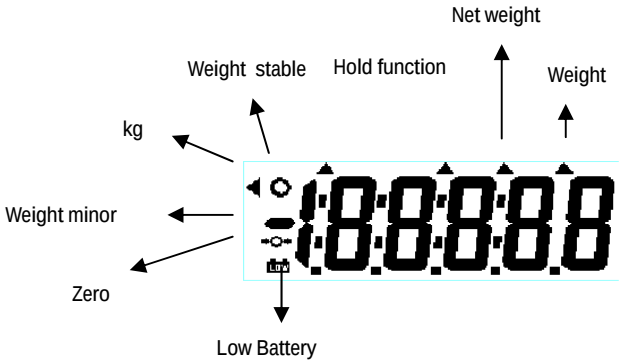
Function Display Symbols

Stable symbol: To indicate that the weight is stable.

Minor weight: Weight under zero.

Zero symbols: Weight is at zero point.

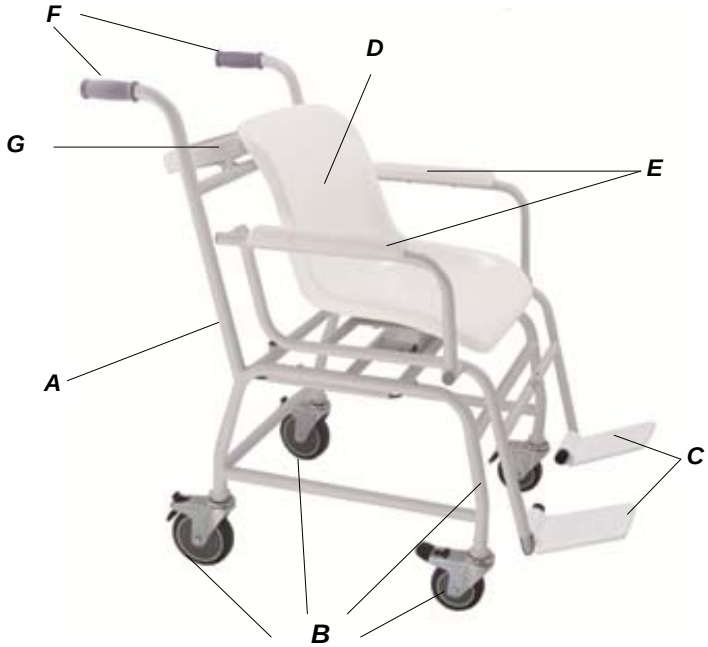
Low battery: Battery need to charge or replaced.



6. INSTALLATION

After removing the instruments from the packing check the integrity and right contents

The scale component as the follow picture:



A. Frame with loading cell

B. 4 wheels (the rear wheels are provided with locking brakes)

C. ***. Movable footrests***

D. ***Fireproof polypropylene seat***

E. ***Movable arms, opening 100%***

F. ***Handles for transport***

G. ***Control panel or display***

- 1 Adapter stabilized Wunder
- Pagkaging to trasport;
- This user manual;
- Conformity CE.

NOTE:

Put the scale far from souce from of heat e vibration.

Put the scale on stable surface.

ATTENTION!

VERIFY THE INTEGRITY OF THE INSTRUMENTS AND ALL THE COMPONENTS CONNECT THE INSTRUMENTS WITH IT'S ADAPTER

WARNINGS!

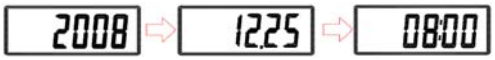
BEFORE USING RECHARGEABLE BATTERIES FOR 8 HOURS

7. ISTRUCTION FOR USE

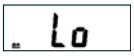
7.1 Time setting

Long press PRINT key for 3 seconds to enter the TIME SETTING mode, beginning with the top row, with the flashing digit. Press PRINT key after successful change to move to next step.

EX: To input Dec 25, 2008, 8:00am.

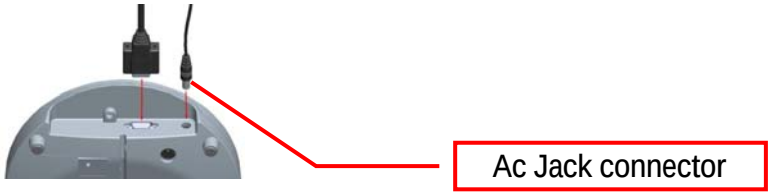
	Enter year: Using TARE keys to decrease the value, press HOLD key to move to next digit. Press PRINT key after successful entry to move to next stage.
	Enter date: Using TARE keys to decrease the value, press HOLD key to move to next digit. Press PRINT key after successful entry to move to next stage.
	Enter time: Using TARE keys to decrease the value, press HOLD key to move to next digit. Press PRINT key after successful setting.
	Display Format YYYY→MM.DD→TT:SS

7.2 Instruction for charging and connecting

If  prompt displays on the LCD, please charge the scale with exclusive adaptor.

Locate adaptor plug on the rear side of indicator.

The battery should be recharged at least every 3 months regardless if it is used or not. After a long period in storage, e.g. over 3 months, the battery should run a full cycle (charge/discharge) to allow it to restore to full capacity.



WARNINGS!

BEFORE USING RECHARGEABLE BATTERIES FOR 8 HOURS

7.3 Weighing

Switch on the scale using key. The diagnostic scale self-check is performed and the software version is displayed.

Position the patient on the chair with the feet on the footrest during weighing.The „0,00 kg" weight displays on the screen, now the scale is ready for weighing.

Note: If display is not at 0.0kg while switching power on. Kindly press key to zero the scale which can be used at any time to zero the scale.

Press for three second the key

7.4 Hold function

The scale is provided with the integrated hold function to determine the average weight. It enables people to be weighed accurately although they are not still on the scale platform.

- Switch 'ON' the scale using [ON/ZERO/OFF] key. The diagnostic self-check will be performed and after that „0.0 kg" will display on the screen with 'stable' and 'zero sign'.
- Move the object/ person on the scale platform.
- Press the [HOLD/BMI] key once. The 'HOLD' will display on the screen with blinking triangle and after few seconds the average of fluctuating weight will display on the screen and will lock on the display.
- To release the locked weight on display simply press the [HOLD/BMI] key again and the display will return to normal mode automatically.
- [HOLD/BMI] key function can be activated before or after putting the weight on the tread platform. But in case of weighing unstable person it is recommended to press [HOLD/BMI] key after the person moves on the tread platform.

7.5 BMI function

In normal mode, long press [HOLD/BMI] key 3sec to enter into BMI mode.

The second display will show last height and the extreme left digit will blink.

Use [TARE] to decrease value and press HOLD to change to next digit. Press [ON/ZERO/OFF] key to confirm height value.

When the display shows "Hold", please stand on the scale platform, Proceed to weigh as normal. The instrument will show the weight, height, and BMI value.

To release the locked weight on display simply press the [HOLD/BMI] key again and the display will return to normal mode automatically.

7.6 Tare function

Tare allows the user to zero the instrument to cancel the weight of a container/ clothes from the reading of the instrument, thus giving the true weight of the product/ person being tested.

Turn on the scale using key.

When displays on the screen and scale beeps twice, Place the object (clothes) need to be tare on the tread platform.

Press after the weight stabilizes and stable sign appears on the display.

Display will return to

Place the item/ baby need to be weighed (without removing the tare object). The weighing result is the Net weight of the item / baby.

To delete the saved tare value, remove the tare object from the tray and press key again.

8. PRINTER FUNCTIONS

Weight can be printed for records using RS232 interface cable.After weighing simply press PRINT key to print out the results

The format presented below is the standard format of results print-out and cannot be changed.

More informations info@wunder.it or service@wunder.it

WUNDER	
Date/Month/Year	hour:minute
Peso/Weight	30.00kg
Altezza/ Height	100.0cm
Indice Massa Corporea BMI(Body Mass Index)	30.0
Sottopeso Underweight	<18
Normopeso Normal weight	18-24.9
Sovrappeso Pre-obesity	25-29.9
Obesità calaae I Obesity class I	30-34.9
Obesità calaae II Obesity class II	35-39.9
Obesità calaae III Obesity class III	>40

Set parameters of the scale interface on the connected device. It is not possible to change the scale parameters.

Baud rate: 9600 bps

Parity check: None

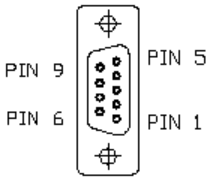
Data length: 8 bits

Stop bit: 1 bit

Handshake: RTS/CTS

Data code: ASCII

Serial RS232



Piedino	Segnale
2	TXD
3	RXD
5	GND

Connector RS232

Connecting with PC

– Start Hyper Terminal

Start Hyper Terminal program from clicking

Start Menu → Programs → Accessories → Communication → Hyper Terminal.

– New Connection Description

Give new connection a name then click OK.

– Select Your COM Port

Click Connect to select your COM port. Usually there's only one option for select. Then click OK.

– Port Settings

Click Bits per second to set up rate at 9600, Data bits at 8, Parity at None, Stop bits at 1 and Flow control at Hardware. Then click OK to complete your setting.

– Output Data

When press the PRINT key to output data from scale to PC or an Optional Printer.

9. SETTING SETUP

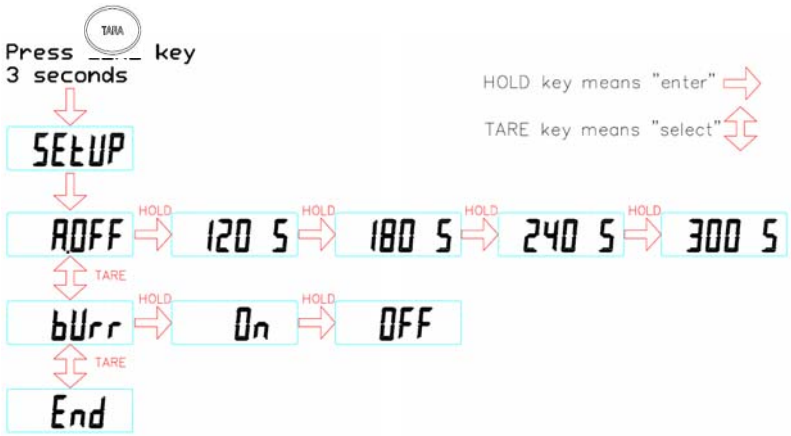
Switch ON the scale and long press TARA key for 3 seconds, first "SETUP" and then "A.OFF" will display successively.

AUTO-OFF TIME SETUP

This enables operator to select the auto turn OFF time of the device.

BUZZER ON/OFF SETUP

This enables operator to select beep sound ON/OFF.



Note: To confirm the settings, please press HOLD BMI when End displays on the display.

10.ERROR MESSAGE

ERROR MESSAGE	REASON	ACTION
	Low Battery: **This warning shows that the voltage of battery is too low to use**	**Please replace a new battery or plug the AC adaptor for operation.**
	Overload: **The total load exceeds the maximum capacity of scale**	**Please reduce the loading and try again.**
	Counting error (too high): **Indicates that the signal from the load cell/s is too height**	**This error is normally caused by a serious fault on the scales such as a faulty load cell or wiring. Please contact the local service representative.**
	Counting error (too low): **Indicates that the signal from the load cell/s is too low**	**This error is normally caused by a serious fault on the scales such as a faulty load cell or wiring. Please contact the local service representative.**
	Zero count over calibration zero range +10% while power on	**Please re-calibrate the instrument.**
	Zero count under calibration zero range –10% while power on	**Please re-calibrate the instrument.**
	EEPROM Error: **Indicates that there is a fault with the scales software**	**This error is normally caused by a serious fault on the scales such as a faulty load cell or wiring. Please contact the local service representative.**

11. MAINTENANCE AND ASSISTANCE

For better and longer duration of the product it should receive thorough general cleaning periodically.

The instrument must be cleaned with a soft cloth moistened with water or neutral detergent, without using solvents or abrasive substances. If the instrument remains idle for a long period, remove the batteries from the terminal.

During shipping, make sure not to subject the instrument to blows or excessive mechanical stress.

In case of repairs or assistance, contact your dealer or an authorised service centre contacting service2@wunder.it or sales@wunder.it.

12. CONFORMITY

WUNDER MODEL DE5 ELECTRONIC SCALE SERIAL N°.....
We hereby certify that this instrument has been inspected and has successfully passed the functional test. Itcomplies with the following standards and directives: EN 45501 / EN60601-1-2 / EN60601-1 93/42/EEC – Medical Devices Directive

13.IDENTIFICATION LABELS

WUNDER SA.BI. srl DK 0199.336
M
CE 13 0291
Max 300 kg
e= 100 g
DE5 (WU 150)
Matr. 0002
T= - 300 kg
5°C / 35°C
DE 5 VANO BATTERIE
Per la sostituzione della batteria
(modello ricaricabile tipo :RETC 7,2 V 2000 mAh
vedere il manuale di istruzioni)
To replace the battery
(rechargeable sealed type :RETC 7,2 V 2000 mAh
see the manual)
Temperatura di stoccaggio: 0-60°C
Storage Conditions Temperature :0-60°C
DE 5 stoccaggio
WUNDER Sa.Bi. S.r.L
Model :DE5 (WU 150) 12V 2A
Internally powered equipment with battery
or supplied by external model AD-8057 (DK)
Internamente alimentata con batteria
o da AC/DC alimentatore esterno modello AD-8057 (DK)
CONFORME ALLA DIRETTIVA 93/42 CEE
CE 0470

14. SCRAPPING AND WASTE DISPOSAL

If set aside for a long period, protect those parts which could be damaged due to dust build-up

Scrapping

When you decide to no longer use this item, we recommend making it unusable. We also recommend making those parts which could be sources of danger harmless

Waste disposal EU 2002/96/EC

This product complies with the EU Directive 2002/96/EC. The symbol of the crossed-out waste bin on the appliance indicates that the product, needing to be treated separately from household waste, at the end of its useful life must be completed in a separate collection facility for electric and electronic appliances or returned to the dealer upon purchase of a new equivalent appliance. The user is responsible for bringing the appliance to an appropriate collection structure at the end of its life. Appropriate separate collection and

sending the appliance for recycling, treatment and environmentally compatible waste disposal contributes to avoid possible negative effects on the environment and health and favours the recycling of the materials the product is made of.

For more detailed information regarding available collection systems, contact your local waste disposal service or the shop where the product was purchased.

As consumers, you are obliged by law to return used or dead batteries. You may deposit old batteries at public collection spots in your town or else with any battery dealer who has placed specific collectors for this purpose. Even when scrapping electric and electronic appliances, they must be removed and deposited in specific collectors.

NOTE: The following symbols indicate the presence of harmful substances

Pb Pb = batteries containing Lead Cd Cd = batteries containing Cadmium Hg Hg = Batteries containing Mercury

ATTENTION!

Do not throw electric parts and used batteries away with household waste. Dispose of the batteries by means of your closest collection centres.

15. WARRANTY

This certificate must be kept until the warranty has expired.

It must be presented together with the invoice, tax receipt or delivery note providing the name of the dealer and date of purchase whenever a technical intervention is required. Otherwise the user will lose any warranty rights.

The warranty takes effect from the date of purchase and is valid during the entire period foreseen by the current catalogue/pricelist.

By warranty we mean the replacement or repair free of charge of parts making up the appliance which, at the discretion of the manufacturer, are deemed faulty from the origin; Wunder therefore has the faculty of repairing or replacing the item.

The warranty does not cover:

- shipping faults, damage caused by falls, carelessness or tampering
- damage caused by incapability of using the appliance and of its improper use
- damage caused by an insufficient or inadequate electrical system or alterations resulting from environmental, climatic or other types of conditions
- damage due to incorrect installation of the appliance and repairs carried out by unauthorised personnel
- Interventions at home for convenience controls or presumed defects
- Routine maintenance and that which can be considered normal wear from use
- consumables such as: power supplies, batteries, keyboards, plates, wheels, heads, rolls, load cells faulty due to blows or overloads

Service can also be refused when the appliance has been changed or transformed in any way.

In case of interventions at one's home, the customer must pay the fixed fee; if however the appliance is repaired at an authorised Wunder Service Centre, expenses and relative travel risk are borne by the user.

Wunder will not be held liable for damage of any nature caused directly or indirectly to persons, animals or objects resulting from failure to comply with all the instructions indicated in this manual or anyway resulting from improper use.

The Court of Bergamo has jurisdiction in case of any dispute